

CLAIMS

1. A fixing apparatus comprising:
 - a rotating heating element that heat-fixes an unfixed image on a recording medium;
 - 5 a heating section that heats the rotating heating element;
 - a power supply that supplies power to the heating section; and
 - a self-diagnosis section that issues a directive
 - 10 for heating when a condition for not heating the rotating heating element has been met, and confirms that the rotating heating element is not heated.
2. The fixing apparatus according to claim 1, wherein
- 15 the power supply has:
 - an inverter circuit that supplies a high-frequency alternating current to the heating section; and
 - an oscillation stop circuit that stops oscillation of the inverter circuit when the rotating heating element
 - 20 stops or has a rotation speed less than or equal to a threshold value.
3. The fixing apparatus according to claim 2, further comprising:
 - 25 a signal generation section that outputs a phase signal corresponding to a rotation speed of the rotating heating element; and

a rotation detection section that is provided independently of a processor, and detects from the phase signal that the rotating heating element has stopped rotating or has a rotation speed less than or equal to
5 a threshold value.

4. The fixing apparatus according to claim 1, wherein the power supply has:

an inverter circuit that supplies a high-frequency
10 alternating current to the heating section; and

a power-supply-side processor that controls oscillation of the inverter circuit in accordance with a control signal supplied from a processor, and when the rotating heating element stops or has a rotation speed
15 less than or equal to a threshold value, stops oscillation of the inverter circuit without regard to the control signal.

5. The fixing apparatus according to claim 4, further
20 comprising a signal generation section that outputs a phase signal corresponding to a rotation speed of the rotating heating element;

wherein the power-supply-side processor detects from the phase signal that the rotating heating element
25 has stopped rotating or has a rotation speed less than or equal to a threshold value.

6. The fixing apparatus according to claim 1, wherein the self-diagnosis section executes self-diagnosis each time power is turned on and/or restoration is performed from a sleep state, and/or at regular intervals during
5 standby.

7. The fixing apparatus according to claim 1, wherein the power supply has:

an inverter circuit that supplies a high-frequency
10 alternating current to the heating section; and

a power suppression circuit that controls oscillation of the inverter circuit in accordance with a power control signal supplied from a processor, and when the rotating heating element stops or has a rotation
15 speed less than or equal to a threshold value, suppresses oscillation of the inverter circuit without regard to the power control signal.

8. An image forming apparatus comprising:

20 an image forming section that forms an unfixed image on a recording medium; and

a fixing apparatus that heat-fixes by means of a rotating heating element an unfixed image formed on the recording medium by the image forming section;

25 wherein the fixing apparatus according to claim 1 is used as the fixing apparatus.